

REMARKS

By this amendment claims 1-21 have been cancelled and new claims 22-31 are presented for examination. The new claims 22-31 are all the claims pending in the application.

Claims 1-2 and 11-12 are rejected under 35 U.S.C. § 102(e) as being anticipated by Terrell et al. (U.S. Patent No. 2002/0188720).

Claims 3-5 and 13-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Terrell et al. (U.S. Patent No. 2002/0188720), as applied to claims 1 and 11 above respectively, in view of Hoffman et al. (U.S. Patent No. 6,094,435).

Claims 6, 8, 16, 18 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Terrell et al. (U.S. Patent No. 2002/0188720) as applied to claims 1 and 11 above respectively, in view of Chen et al. (U.S. Patent No. 6,487,170).

Claims 7 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Terrell et al. (U.S. Patent No. 2002/0188720), as applied to claims 1 and 11 above respectively, in view of McCloghrie et al. (U.S. Patent No. 6,286,052).

Claims 9-10 and 20-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Terrell et al. (U.S. Patent No. 2002/0188720), as applied to claims 1 and 11 respectively, in view of Chen et al. (U.S. Patent No. 6,487,170) and Hoffman et al. (U.S. Patent No. 6,094,435).

Since claims 1-21 have been canceled their pending rejections are rendered moot.

The Applicants request kind reconsideration.

The Applicants provide the following remarks in support of the patentability of the new claims. Under connection-oriented environment like the ATM, QOS is defined in units of connections and a priority control can be carried out to meet it. However, under the

connectionless environment there is no concept of units of connections and priority control. To handle such cases (for example, where an IP packet is transferred as in the Internet) an apparatus that can realize the concept of IP-QOS is introduced. This provides a communication apparatus which can carry out priority control of communication quality in units of packets.

Diff-Serv is a conventional IP-QOS. However, it only defines the frame work of a QOS class. However, such IP-QOS does not handle all details. The details of each QOS class and a scheduling method among the classes are left to be determined appropriately by a vender based on practical considerations or by the company operating the network.

The present invention provides a communication apparatus which overcomes such problems.

In an exemplary implementation, to determine an IP-QOS class, IP packet header information of layer 3 and TCP header information of the upper layer are used.

Terrell describes only class control of Diff-Serv which is admitted to be prior art. The present invention, as recited in new claim 22, requires **allocation of IP-QOS codes based on a combination of information contained in an IP packet header and a TCP header defined by the OSI reference model.**

In an exemplary implementation of the present invention, a transmission origin IP address, a transmission destination address, etc, are determined from the header information of layer 3. The priority is determined from the port number from the header information of layer 4. Therefore, it is possible to carry out routing of the IP packet which is transmitted from a specific port of a specific apparatus (which has a specific IP address) with priority. Likewise, it is possible to carry out routing if the IP packet which is transmitted to a specific port of a specific apparatus (which has a specific IP address) with priority. In a network which uses the

communication apparatus of the present invention, it is possible to provide special service to a specific customer under the connectionless environment.

In addition, none of the secondary references, namely Hoffman, Chen and McCloghrie overcome the deficiency noted above in the teachings of Terrell.

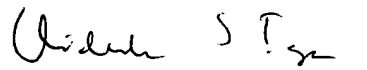
Claims 23-26 are dependant on claim 22 and are allowable for the same reasons. Claim 27 is a method claim that includes features analogous to claim 22, and therefore, is allowable for the same reasons. Claims 28-31 are dependant on claim 27 and are allowable for the same reasons.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Chid S. Iyer
Registration No. 43,355

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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CUSTOMER NUMBER

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